

CLAIMS

What is claimed is:

1. A hand tool, comprising:
 - a conductive tool head that is at least one of a wire cutter, a wire stripper, a screw driver, a wrench, and a pliers;
 - a non-contact voltage sensing circuit electrically connected to the conductive tool head, the non-contact voltage sensing circuit including a comparator for comparing a voltage sensed at the conductive tool head to a threshold voltage level and an alarm circuit for generating a human perceptible alarm signal when the threshold voltage level is exceeded, the alarm circuit including at least one of a visual and an audio indicator device electrically connected to receive the alarm signal and to provide an output that is perceptible by a human; and
 - a handle operatively connected to the tool head and housing the non-contact voltage sensing circuit including the at least one indicator, the indicator providing a human perceptible signal to a user indicating that the tool head is in proximity to a live electrical wire.
2. The hand tool as defined in claim 1, further comprising an actuator for selectively activating the non-contact voltage sensing circuit.
3. The hand tool as defined in claim 1, wherein the handle comprises an insulated material.
4. The hand tool as defined in claim 3, wherein the handle further comprises a metal foil coupled to a circuit common in the non-contact voltage sensing circuit.
5. The hand tool as defined in claim 1, further comprising a momentary actuator switch coupled to the handle, the momentary actuator switch being coupled between a power

supply and the non-contact voltage sensing circuit to activate the non-contact voltage sensing circuit.

6. A hand tool comprising:
 - a) a conductive tool head that is at least one of a wire cutter, a wire stripper, a screw driver, a wrench and a pliers to work a work piece;
 - b) a handle, connected to the tool head so as to operate the tool head to work the work piece;
 - c) a non-contact voltage sensing circuit electrically coupled to the conductive tool head; and
 - d) an alarm device, the alarm device being activated by the non-contact voltage sensing circuit to provide a signal to indicate that the tool head is in an electrical field at an elevated voltage.
7. A hand tool as defined in claim 6, wherein the alarm device comprises at least one of a visible alert indicator and an audible alert indicator.
8. A hand tool as defined in claim 7, wherein the alarm device comprises a light emitting diode.
9. A hand tool as defined in claim 7, wherein the non-contact voltage alert circuit comprises an oscillator for driving the audible alert indicator in an audio frequency range.
10. A hand tool as defined in claim 6, further comprising a switch for activating the non-contact voltage sensing circuit.
11. A hand tool as defined in claim 6, further comprising a conductive foil, the conductive foil being coupled to a circuit common of the non-contact voltage sensing circuit and capacitively coupled to the user's hand to provide a connection through the user to provide a ground for the circuit.
12. A hand tool as defined in claim 6, wherein the non-contact voltage detection circuit is housed in the handle.